EMPLOYING HANDWRITING WITHOUT TEARS® TO TEACH A 4-YEAR-OLD PRESCHOOL STUDENT TO WRITE HIS NAME WITH THE APPROPRIATE SIZE, SHAPE, AND FORM COMBINED WITH AN IMITATE/TRACE/COPY/MEMORY PROCEDURE

By

EMALIA C. STEELE * T. F. MCLAUGHLIN ** K. MARK DERBY ***
KIMBERLY P. WEBER **** DENISE DONICA ***** MICHELLE MCKENZIE ******

** Early Childhood Special Education*
*** Retired Full Professor, Gonzaga University*
****,**** Full Professors, Department of Special Education, Gonzaga University.*
****** Associate Professor ,East Carolina State University*
******* Special Education Teacher, Spokane Public Schools*

ABSTRACT

The main purpose of this study was to evaluate the effectiveness of the prewriting and handwriting curriculum Handwriting Without Tears® (HWT) in a preschool setting with a single student who has developmental delays and a suspected Autism Spectrum Disorder (ASD) diagnosis. Data were collected during the regular preschool day. The behavior measured was the student's ability to independently and accurately write his name given by the visual prompt "Name: _____" and verbal instructional cue "write your name". A modified imitate, trace, copy, and memory procedure was used with the student with the instructional support and curriculum from the Handwriting Without Tears ® Get Set for School (Olsen, 2003) curriculum. In addition to this curriculum, first author created materials were also used. The overall outcomes indicated that the Handwriting Without Tears ® programs was successful in teaching that student who has severe developmental delays, tactile defensiveness, and sensory processing deficits to write his name.

Keywords: Handwriting, Preschooler, Handwriting Without Tears, Name, Multiple Baseline Design, Single Case Research.

INTRODUCTION

Preschool is a critical time when very young children focus on play-based, hands-on readiness activities, which build their foundation for lifelong learning. Whether children are writing their names, drawing pictures, solving math problems, or conducting science experiments, handwriting is an essential skill. Handwriting is crucial to academic success as well as an important component of communication (Graham, 1999, 2010; Graham, Harris, & Fink, (2000). Children develop their handwriting skills in stages. Many children begin to develop prewriting skills by first scribbling on a paper with a crayon or marker and moving towards drawing prewriting shapes such as a square circle, and triangle. As early students, many children are still developing the appropriate grasp for holding a writing utensil. They also learn to distinguish letters from numbers and begin to recognize the letters in their name. Many children at the preschool age begin to recognize their name in print and that print has meaning. In preschool, often before any formal schooling takes place, children develop awareness that writing has meaning (Naidoo, Engelbrecht, Lewis, & Kekana, 2009, Neuman, S. 2004). Handwriting is a difficult skill as it involves an intricate exchange of cognitive and visual motor skills, hand strength and fine motor ability, as well as environmental factors that may be inhibiting the ability to learn (Donica, Larson, & Zinn, (2012).

As a child progresses from scribbling on paper to making more precise motor movements, children begin to notice the visual features of print: Such as big lines, little lines, and shapes. Furthermore, they see that the shapes can be used to generate letters and words. This is why the Handwriting Without Tears ® (HWT) program (Olsen, 1998, 2003) encourages instructors to teach a child how to draw

simple shapes within a developmental sequence prior to the letters that use the respective shape. This program has been revised and expanded to include new materials over time (Olsen 2005, 2013; Olsen & Knapton, 2006, 2008, 2012; 2013).

Though handwriting in early childhood has not been well documented until late, studies are beginning to show that there are some consistencies in teaching effective initial penmanship skills. Appropriate grip, writing letters from the top with downward strokes, and incorporating fun learning strategies are all supported by the early childhood handwriting curriculum HWT® (Roberts, 2009).

The HWT® handwriting curriculum (Olsen, 1998, 2003) has started to be evaluated in the literature. HWT® methods were selected for this study for two primary reasons. First, HWT® is used in the study participant's classroom and was recommended by the participant's occupational therapist. Second, HWT® has been suggested by occupational therapists in general because of the appropriate developmental techniques it uses (Case-Smith, 2002; Donica, 2010a, 2010b). Since children progress their copying skills from a horizontal line to a circle, cross, square, and then triangle, teaching shapes seemed a logical skill to be paired with handwriting. Learning how to draw shapes uses horizontal, vertical, and diagonal lines to reinforce proper handwriting technique and will give the student guidance in developing the muscle and strength in the hand. Given this, the materials from HWT® will be used for both primary instruction and supporting skill. In research and theory, the systematic instruction found in HWT® has been replicated in current research in working with students with disabilities as tracing and start points have been used in recent research with preschool students with disabilities. The development of handwriting is seen in the early primary years and HWT® is useful for all students regardless of whether or not they have a disability as the curriculum teaches handwriting skills that are based on what children already know and how they learn best since it capitalizes on their development level.

Objective

The objective of this study was to evaluate the effectiveness of the prewriting and handwriting curriculum HWT® in the same preschool setting as much of our early research. We also wanted to replicate the efficacy of HWT® with a child who has developmental delays and a suspected diagnosis of Autism Spectrum Disorder (ASD). The second objective of the study was to have the participant print his first name independently in capital letters with the appropriate size, shape, and form. The final objective of the present case report was to increase the participant's ability to copy prewriting shapes (square, triangle, circle).

Method

Participant and Setting

The participant of this study was one student in an Early Childhood Education Assistance Program (ECEAP) in the Pacific Northwest. The participant was a 4-year-old boy with diagnosed Developmental Delays in pre-academic, communication, fine motor, and adaptive domains. He has been also diagnosed with tactile defensiveness and has gastrointestinal and sensory deficits. The participant was born prematurely at 27 weeks gestation weighing just over 2 lbs. He is a triplet and is the only one of the three that has developmental delays. He and his sisters spent just under 90 days in the Neonatal Intensive Care Unit (NICU). His parents are very involved in his education as he lives with his mom, dad, sisters, and grandmother. Data collection occurred during the regular preschool classroom routine. The students attended school four days per week. Fridays were used for home visits, planning, and conferences with parents.

Data Collection

Data were collected and sessions were conducted during free play and center activity time during the preschool day. These data were collected in the morning session since that is when the participant attended preschool. The participant was instructed individually and most of the sessions occurred at a table outside the classroom in order to provide the student with more conducive and quiet learning environment. The classroom was staffed by a certified teacher, two para-educators, and a student teacher (first author). In addition, the physical therapist,

occupational therapist, and speech and language pathologist would also be in and out of the classroom depending upon the day.

Our participant's skills in writing his name indicated there were multiple prerequisite skills and knowledge that are related to the objective that our participant needed to acquire order to be successful with the letters. For the learning task, the participant had the ability to recognize his name from a cluster of names, name uppercase and lowercase letters, as well as match uppercase letters with lowercase letters. The participant knew the name of individual letters in his name and could correctly respond when asked how to spell his name. However, when asked to write his name in Baseline, the participant was unable to correctly and independently form, size, and shape a majority of the letters in his name.

Finally, the participant was somewhat able to trace uppercase THO with written highlighted letters as prompts, as he was able to write over the highlighted letter but did so with inconsistent form, shape, and size. The participant did not show any ability to trace MAS independently when given highlighted letters as prompts. When asked to write his name without any highlighted letters, the participant was able to make marks on the paper that reflect the first three letters of his name but did so with inconsistent size, shape, and letter formation. The participant was unable to independently write the last three letters of his name and would make scribbles on the paper after writing the O.

The participant had recently moved from a self-contained preschool to an inclusive preschool integrated with typically developing peers. The preschool consisted of two sessions: a morning session and an afternoon session. The morning session would last from 9:00 a.m. to 11:30 am and the afternoon session would last from 12:30 p.m. to 3:00 p.m. The participant as the student attended the morning session. The classroom was an integrated setting containing students from low-income families, students with Individualized Education Plans, English Language Students, and typically developing peers. All students were of ages 3 to 5 years. This classroom has been the setting for several research projects involving handwriting and HWT® (Coussens, McLaughlin, Derby, & McKenzie, 2012; LeBrun, McLaughlin, Derby, & McKenzie, 2012; Morris, McLaughlin, Derby, & McKenzie, 2012).

Materials or Tools

The study utilized the materials developed from the Handwriting Without Tears® curriculum. The curriculum used was the 'Get Set for School' (Olsen, 2003) curriculum. The curriculum included: the wooden manipulatives used to form capital letters, letter cards with the outlines of the wooden manipulatives on them, as well as name writing worksheets. These materials are available from the publisher and come with the HWT curricula. In addition, the first author had created a box controlled name writing worksheet in which the student would place an first author made basketball court stencil over the strip of paper and he would write his name in the size controlled boxes. Additionally, markers, whiteboard, white board markers were used. Also, the classroom iPad was used as a reward for the student after he completed five activities.

Dependent Variable and Measurement

The purpose of the study was to increase the participant's ability to write his name. According to the baseline data that was taken prior to the beginning of the intervention, the participant did not display knowledge of how to properly size, shape, and form the letters of his name. Therefore, given the visual prompt "Name: _____ " and verbal instructional cue "Write your name" the participant was taught how to independently and accurately write his name with the correct size, shape, and form for each letter within his name.

The participant's name was scored using a point system. Three points were awarded for each letter of his name. One point was given for size – whether the size was appropriate and matched the sample. One point was given for appropriate formation – whether the proper letter formation for each letter matched the HWT® curriculum. The third point was awarded for shape – whether the letter was legible and appeared to have the overall shape of the letter that was to be written.

Experimental Design and Conditions

The design of the study was a multiple baseline (Kazdin, 2011; McLaughlin, 1983) across sets of letters. A

description of each phase follows.

Baseline: During baseline the participant was given a marker, a piece of plain white paper with the visual prompt "Name: _____," and the same verbal instructional cue "Write your name". This condition was in effect from 3 to 20 sessions.

HWT®: Following baseline, the student was provided with the imitate/trace/copy/memory intervention with the HWT® curriculum which will be described. For each session, the first author would introduce the letter to the participant by asking him what letters it was, what sound it makes, and what some words or things were that started with the letter. After this introduction, the first author would begin the intervention. The first author using first model that shows, would make the letter that was being taught that day with the wooden manipulatives. The HWT ® letter card would be placed on the table in front of the student and the first author would verbally say the formation cues while placing the wooden pieces on the letter card. For example, when teaching "T," the first author would state, "Start at the top at the smiley face. Big line down, frog jump, little line across". The wooden pieces would then be given to the participant so he could create the letter while saying, with the first author, the correct formation cues. The wooden pieces would then be taken away from the participant and he would have to tell the first author how to make the letter by asking for the correct wooden pieces (imitate). After the participant was able to complete the imitate step with the letter card, the letter card was taken away, and a blank piece of paper was given to the student to see if he was able to create the letter without the prompts from the letter card (dotted outline of where the wooden pieces are placed, smiley start point).

Once the participant had the correct formation of the letter with the wooden manipulatives, he would be watched as the first author modeled how to write the letter on the whiteboard. The participant would trace over the modeled letter on the whiteboard with different colored markers to make "rainbow letters" (trace). Once finished, the participant was presented with the whiteboard in order to copy the letter. During the copy procedure there was no smiley/basketball start point for starting the reference point. Instead, the participant would watch and listen to the first author as the first author demonstrated the letter in one half of the whiteboard. This was followed by the participant printing the letter in the other half of the whiteboard while verbally saying the letter formation cues "big line down, little line across". The participant would then complete the corresponding 'HWT® Get Set for School' worksheet for the letter that was introduced in that day. While completing the worksheet, the participant would be given guided practice in correctly forming, shaping, and sizing each letter. The participant will then be given a HWT® This is my Name worksheet found in the Get Set for School book in which he would watch the first author white writing the participant's name while the first author verbally modeled how to form each letter (copy). The participant would then independently write the introduced letter and previously taught letter(s) as well as trace the untaught letters under the model. After this additional practice, the participant would be asked to write his name again to assess if he was able to write the letter from memory with no additional prompting beside the verbal prompt "Write your name" and the visual written prompt "Name: __" (memory). Once the first letter had reached mastery when given the daily assessment, the second letter was introduced. Mastery was defined as for each letter as having the correct size, shape, and form as defined by HWT® curriculum, for two or more days.

Interobserver Agreement of Implementation of Experimental Conditions

Permanent product data were collected at the beginning of each session. The participant was provided with a blank piece of paper with the visual written prompt "Name: _____" and verbal instructional cue "Write your name". The participant was encouraged to do the best that he could. The first author gathered the data by scoring the participant's work and would have another teacher who was trained on how to score the letters score by the participant's work to obtain interobserver agreement. The numbers of handwriting points given to the participant by the two teachers were compared to each other. Interobserver agreement was calculated by diving the smaller number of handwriting points by the larger and

multiplying by 100. The percent of interobserver agreement was 93% with a range of 67% to 100%.

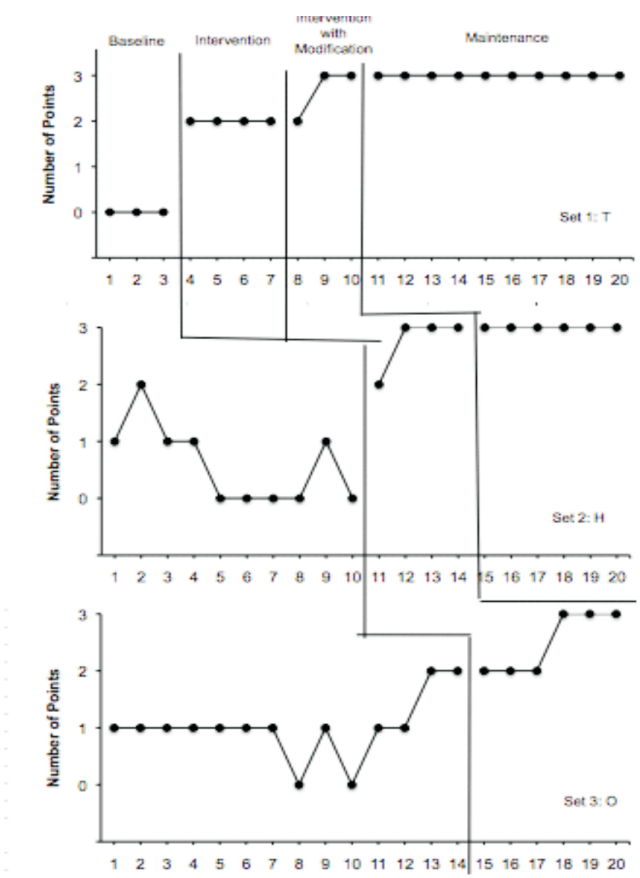
Results

Baseline

Baseline data (as shown in Figure 1) indicated that the participant was unable to correctly size any letter even the letter T. For H, he was able to earn an average of .6 points in baseline with a range of 0 to 2. For baseline with the letter O, participant averaged 1.0 out of 3 points (range 0 to 2 points). Even though MAS were in baseline, the participant was able to earn from 0 to 3 handwriting points after session 11. For the letter M, the mean number of handwriting points earned was .082 (range 2 to 2). For the letter A, the participant averaged 0.10 handwriting points (range 0 to 2). For the letter S in baseline, an increase was found at the end of data collection (M = 0.133; range 0 to 3).

Handwriting Without Tears®

As it can be also seen from Figure 1, the participant's



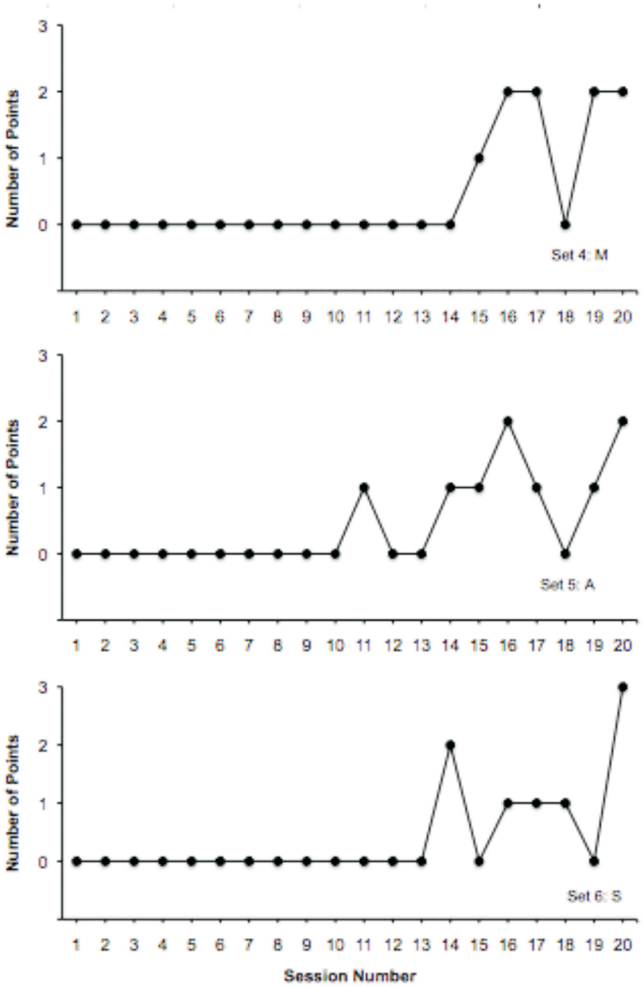


Figure 1. The number of total points per letter for each set for each condition.

progress was improved over time. For the first intervention with HWT, the participant improved and earned an average of 2.0 handwriting points.

Modified Handwriting Without Tears®

Since the participant was not improving and showing the ability to correctly size the letter T, the first author made a modification in instruction to help the student to learn proper size. With this modification, by the end of the learning segment, the participant was able to independently and correctly size, shape, and form each letter that had received instruction (M = 2.7; range 2 to 3 handwriting points).

Discussion

The student made significant progress in each letter within his name, even with letters that had not been explicitly taught (MAS). On the last day of instruction for the learning

segment, the participant reached 88% accuracy in independently writing his name with the correct size, shape, and form of each letter. The first three graphs represent Set 1: T, Set 2: H, and Set 3: O. The last three graphs represent Set 4: M, Set 5: A, and Set 6: S. Sets 4-6 remained in baseline throughout the duration of the learning segment due to time restraints. In continuing the learning segment M and A would be taught next and would be taught together along with triangle since they have similar formation and use diagonal lines. Even though the first author was limited with the amount of time for instruction, the graphs show the student making a large improvement in his ability to accurately and independently size, shape, and form the uppercase letters of his name. Before the learning segment began, the participant showed no ability to independently and correctly size, shape, and form the uppercase letters T, O, M, A, and S within his name. However, participant has the ability to form and shape 'H' within his name. Once the participant received instruction for letter H, he showed improvement in his ability to correctly size the letter H. Before intervention, during baseline, when the participant would write the letter H, it would take up a majority of the paper, as it was really wide as well as long. At the end of baseline, our participant was not be able to trace M, A, and S. By the end of data collection, participant was not only able to independently trace these letters, he was able to independently and accurately size, shape, and form 'S' and size and shape 'M' and 'A'. Given the participant's level of performance prior to the beginning of the learning segment as well as his developmental level, the participant made vast and impressive improvement in such a short amount of time.

When the letters 'T' and 'H' were placed in maintenance, the participant earned an average of 3.0 handwriting points. He did this for each session for the letters 'T' and 'H' during maintenance. When the letter 'O' was place in maintenance, for the first three sessions, the participant earned 2 out of the 3 letters possible after each session. However, for the last three sessions, our participant had perfect handwriting performance earning a point for size, slant, and formation for the letter 'O'.

Session 19 was the day that the participant had returned from spring break and had not received instruction for two weeks, so it appeared to indicate that learning had truly occurred since the participant showed maintenance of treatment gains regarding his ability to independently and correctly size, shape, and form the letters that had been taught after a break in practice.

Even though the participant did not receive explicit instruction on letters M, A, or S, besides the tracing component during the HWT® Write My Name (Olsen, 2003) worksheet, the participant's handwriting skills improved for T, H, and O. However, this is not enough to say that he has mastered the primary learning target, as more data would need to be collected to see if the student showed consistency and mastery. However, since the participant was making specific and consistent errors on untaught letters such was formation, the first author thought that at this moment in time the student will need explicit instruction for the specific letter to learn the correct formation just because he has rarely been introduced to the proper formation. The participant was inconsistent with M, A, and S throughout the learning segment and became better with the guided practice of tracing untaught letters during instruction.

Strengths

The results of this study on the effectiveness of the Handwriting Without Tears® program for a preschool student with significant developmental delays generated an increase in his ability to independently and accurately write his name. Based on the large improvements made within such a short period of time (roughly 6 weeks) the Handwriting Without Tears® program was effective with a student for significant developmental delays, and suspected Autism Spectrum Disorders, tactile defensiveness, and sensory processing deficits.

An additional strength of this study is, the participant displayed an increase in his handwriting abilities and overall ability to correctly size, shape, and form each letter within his name. Furthermore, the study was efficient and effective, easy to implement, relatively costless, and enjoyable for both the student and the first author as it

implemented opportunities for hands-on learning which was effective for the participant.

Limitations

A weakness of the study was that data collection was limited and the first author ran out of time due to the ending of her student teaching. This made it impossible to teach the participant the remaining three letters of his name. In addition, the participant only attended preschool four days a week and for three hours each day. Sessions sometimes did not occur every day the participant was at school due to timing conflicts with instructional limitations: Therefore, the inconsistency of session implementation may have prevented more of an increase in ability. In addition, halfway through the intervention the participant began to emit behavior such as non-compliance and issues when transitioning from a preferred activity (Cooper, Heron, & Heward, 2007) to the intervention with the first author. This factor inhibited success as it reduced the time instruction. Such a subjective finding needs further analysis.

Conclusions

The present outcomes replicate, much of the prior research successes employing HWT or parts of the handwriting curricula (Coussens et al. 2012; Delegato, McLaughlin, Derby, & Schuster, 2013; Griffiths, McLaughlin, Donica, Neyman, & Robison, 2013; LeBrun et al. 2012; Thompson, McLaughlin, Derby, & Conley, 2012). However, in the present case report authors added Get Set for School' as part of the HWT intervention. Clearly, with employing a single participant, further replications (Kazdin, 2011; McLaughlin, 1983) of these outcomes are needed. However, this does add to the data-base for making preliminary decisions regarding the use of HWT® for individuals with known disabilities. In addition, some additional research was carried out by other authors in different classroom configurations, with a wide range of student presence.

References

[1]. Case-Smith, J. (2002). Effectiveness of school-based OT intervention on handwriting. *American Journal of Occupational Therapy*, Vol. 56, pp. 17-25.

[2]. Cooper, J. O., Heron, T., & Heward, W. L. (2007). *Applied Behavior Analysis* (2nd. ed.). Upper Saddle River, NJ: Prentice-Hall/Pearson Education.

[3]. Coussens, M., McLaughlin, T. F., Derby, K. M., & McKenzie, M. (2012). The differential effects of Handwriting Without Tears® chalkboard, wooden letters, and worksheet using highlight, model and start point on legibility for two preschool students with disabilities. *International Journal of English and Education*, Vol.1, pp.302-310. Retrieved from: http://www.ijee.org/current_issue

[4]. Delegato, C., McLaughlin, T. F., Derby, K. M., & Schuster, L. (2013). The effects of using handwriting without tears® and a handwriting racetrack to teach five preschool students with disabilities pre handwriting and handwriting. *Journal of Occupational Therapy, Schools, & Early Intervention*, Vol. 6. pp. 255-268, DOI: 10.1080/19411243.2013.850962

[5]. Donica, D. K., Larson, M. H., & Zinn, A. A. (2012). Survey of handwriting instruction practices of elementary teachers and educational programs: Implications for occupational therapy. *Occupational Therapy in Health Care,* Vol.26, pp.120-137.

[6]. Donica, D. (2010a). A historical journey through the development of handwriting instruction (part 1): The historical foundation. *Journal of Occupational Therapy, Schools, and Early Intervention*, Vol. 3(1), pp. 11-31.

[7]. Donica, D. (2010b). A historical journey through the development of handwriting instruction (part 2): The occupational therapists' role. *Journal of Occupational Therapy, Schools, and Early Intervention* Vol. 3(1), pp. 32-53.

[8]. Graham, S. (1999). Handwriting and spelling instruction for students with leaning disabilities: A review. *Learning Disability Quarterly*, Vol. 22, pp. 78-98.

[9]. Graham, S. (2010). Want to improve children's writing? Don't neglect their handwriting. *Education Digest: Essential Readings Condensed for Quick Review,* Vol. 76(1), pp. 49-55.

[10]. Graham, S, Harris, K., & Fink, B. (2000). Extra handwriting instruction: Prevent writing difficulties right

from the start. *Teaching Exceptional Children* Vol. 33(2), pp.88-91.

[11]. Jessica Griffith, T.F. McLaughlin, Jen Neyman, Denise K Donica and Milena Robison (2013). "The Differential Effects of the Use of Handwriting Without Tears ® Modified Gray Block Paper to Teach Two Preschool Students with Developmental Delays Capital Letter Writing Skills". *i-manager's Journal on Educational Psychology.* Vol. 7(1) May-July 2013 Print ISSN 0973-8827, E-ISSN 2230-7141, pp. 13 - 22.

[12]. Kazdin, A. E. (2011). *Single case research designs: Methods for clinical and applied settings* (2nd. ed.). New York, NY: Oxford University Press.

[13]. LeBrun, M., McLaughlin, T. F., Derby, K. M., & McKenzie, M. (2012). The effects of using Handwriting without Tears® to teach thirty-one integrated preschoolers of varying academic ability to write their names. *Academic Research International*, Vol. 2(2), pp.373-378. Retrieved from http://174.36.46.112/~savaporg/ journals/issue.html

[14]. McLaughlin, T. F. (1983). An examination and evaluation of single subject designs used in behavior analysis research in school settings. *Educational Research Quarterly,* Vol. 7, pp. 35-42.

[15]. Morris, K., McLaughlin, T. F., Derby, K. M., & McKenzie, M. (2012). The differential effects of using Handwriting without Tears® and Mat Man materials to teach seven preschooler prewriting skills using the draw a person with sixteen specific body parts. *Academic Research International,* Vol. 2(1), pp. 590-598. Retrieved from: http://174.36.46.112/~savaporg/ journals/issue.html

[16]. Naidoo, P., Engelbrecht, A., Lewis, S., & Kekana, B. (2009). Visual-motor integration (VMI) – a predictor for handwriting in grade) children. *South African Journal of Occupational Therapy,* Vol. 39(2), pp. 18-21 (Used VMI)

[17]. Neuman, S. (2004). Introducing children to the world of writing. *Early Childhood Today,* Vol. 18 (4), pp. 34-38

[18]. Olsen, J. Z. (1998). *Handwriting without tears.* Brookfield, IL: Fred Sammons, Inc.

[19]. Olsen, J. Z. (2003). *Handwriting without tears® Get Set For School Workbook.* Brookfield, IL: Fred Sammons, Inc.

[20]. Olsen, J. Z. (2005). Handwriting Without Tears®: Bridging the educational gap. *OT Practice*, Vol. 10(3), pp.7-8.

[21]. Olsen, J. Z. (2013). *Letters and numbers for me* (6th. ed.). Cabin John, MD: Handwriting Without Tears.

[22]. Olsen, J. Z., & Knapton, E. F. (2006). *The print tool: The tool to evaluate and remediate.* Cabin John, MD: Handwriting Without Tears.

[23]. Olsen, J., & Knapton, E. (2008). *Pre-writing teaching aid and method to assist beginning writers in creating letters ®.* John Cabin, MD: Handwriting Without Tears.

[24]. Olsen, J. Z. & Knapton, E. F. (2012). *Readiness & writing pre-k teacher's guide*. Cabin John, MD: Get Set For School.

[25]. Olsen J. Z. & Knapton, E. F. (2013). *Handwriting Without Tears ®, kindergarten teacher's guide* (11th. ed.). Cabin John, MD: Handwriting Without Tears.

[26]. Roberts, A. (2009). Write on!. *Parenting School Years*, Vol.23 (10), pp.102

[27]. Thompson, J., McLaughlin, T. F., Derby, K. M., & Conley, D. (2012). Using tracing and modeling with a Handwriting without Tears® worksheet to increase handwriting legibility for two preschool students with developmental delays. *Academic Research International,* Vol. 2(2), pp. 309-314. Retrieved from: http://174.36.46.112/~savaporg/ journals/issue.html

ABOUT THE AUTHORS

** Emalia C. Steele teaches Early Childhood Special Education in the State of Colorado.*

*** Dr. T. F. McLaughlin has began phased retirement at Gonzaga University, where he is a tenured full Professor.*

**** K. Mark Derby is the Full Professor in the Department of Special Education at Gonzaga University, Spokane, WA.*

***** Dr. Kimberly P. Weber is the Full Professor the Department of Special Education at Gonzaga University, Spokane, WA.*

****** Denise Donica is a tenured Associate Professor at East Carolina State University.*

******* Michelle McKenzie is a Special Education Teacher in Spokane Public Schools.*